US Army Corps
of Engineers.

SAN FRANCISCO DISTRICT

PUBLIC NOTICE

Regulatory Branch
333 Market Street
San Francisco, CA 94105-2197

NUMBER: 277550N DATE: 20 June 2005
RESPONSE REQUIRED BY: 20 July 2005

PERMIT MANAGER: David A. Ammerman PHONE: 707-443-0855 Email: David.A.Ammerman@usace.army.mil

1. **INTRODUCTION:** Riverview Terrace, LLC, 5251 Ericson Way, Arcata, California 95521, through its agent Winzler and Kelly Consulting Engineers (Contact: Mr. Misha Schwarz of Winzler and Kelly at 707-443-8326), has applied for a U.S. Army Corps of Engineers (Corps) permit to discharge fill material into seasonal freshwater wetlands and other waters of the United States to facilitate the widening of North Loop Road, construction of a new access road, installation of a new road culvert and replacement of an existing culvert, and construction of a storm water detention basin to serve a new housing subdivision. The project site is located adjacent to Little Loop Creek, North Loop Road, and Rohnerville Road, at Section 1 T2N-R1W HBM, Fortuna Quad, southeast of the City of Fortuna, in Humboldt County, California. This application is being processed pursuant to the provisions of Section 404 of the Clean Water Act (33 U.S.C. Section 1344). Wetland mitigation and wetland/riparian enhancement measures are proposed and described below.

2. **PROPOSED PROJECT:**

Project Site: The project site (APN 202-061-07) is situated on private property (See Sheet 1 of 8, also labeled Figure 1), and is comprised of a plateau overlooking outlying areas of Fortuna, part of the Strongs Creek riparian corridor, and the Eel River. The top of the plateau is the location for the proposed housing subdivision (which is not in Corps jurisdiction). There is an existing access road (Hilltop Drive) to the plateau on the east side of the hill slope (there is existing older housing on this road), but the City of Fortuna is requiring an additional access road to serve the subdivision and connect with the existing Hilltop Drive. The top of the plateau is undeveloped with upland grassland and timber groves. Little Loop Creek, which bisects a palustrine wetland area on the north portion of the property, is a tributary to Strongs Creek, which in turn is a tributary to the Eel River. Little Loop Creek is a headwaters stream, likely originating from hill slope seeps and springs.

There are four wetland areas within the property boundary: (1) Wetland Area 1 is shown in the southeast corner of Sheet 3 of 8 (also labeled Figure 2b) just east of the proposed access road and where it is labeled "Drainage Inlets". The previous property owners have placed fill on this wetland area. (2) Wetland Area 2 is on the west side of the proposed access road and is where a portion of the storm water detention basin would be constructed. (See Sheets 2 and 3 of 8, also labeled Figures 2a and 2b); (3) Wetland Area 3 is the largest wetland area of the property and is located between the north bank of Little Loop Creek and the south edge of North Loop Road (See Sheets 2 and 3 of 8); (4) Wetland Area 4 is a palustrine forested (PF) wetland located along the south edge of North Loop Road about 150 feet west of the other three wetland areas. Wetland Area 4 is

tree-covered with Scouler Willow (*Salix scouleriana*) with a few upland conifers such as Coast Redwood nearby. There is an under story of California blackberry (*Rubus ursinus*), skunk cabbage (*Lysichiton americanum*), slough sedge (*Carex obnupta*) and Bristly stalk sedge (*Carex leptalia*). Wetland Area 4 has been disturbed by irrigation activity associated with agriculture nearby. (See Sheet 2 of 8) The other Wetland Areas 1, 2 and 3 are palustrine persistent emergent (PPE) wetlands with dominant vegetation of soft rush (*Juncus effuses*), small fruit bulrush (*Scirpus microcarpus*), spreading bentgrass (*Agrostis stolonifera*), meadow foxtail (*Alopecurus geniculatus*), spreading rush (*Juncus patens*) and California blackberry. Little Loop Creek has a well-established riparian corridor on both banks.

Project Description: The project would include a planned unit development with 61 single-family residential lots ranging in size from 6,000 square feet to 60,000 square feet. Most of these lots would be sited on top of the plateau. The existing parcel would be completely subdivided. The project elements in Corps jurisdiction would include the following: (1) As a condition of approval, North Loop Road is required to be widened approximately 18 feet from the intersection with Rohnerville Road to the new access road (Hilltop Drive), approximately 150 feet of which effects wetlands, filling or impacting approximately 1,150 square feet (0.03 acre) of PF wetlands. (See Sheets 2 and 3 of 8) (2) The new access road between the existing North Loop Road and the top of the plateau would require the fill or impact approximately 20,800 square feet (0.48 acre) of PPE wetlands. (See Sheets 3 and 4 of 8) (3) A new culvert (54-inch Reinforced Concrete Pipe [RCP]), 72 feet long with concrete headwalls would be installed to allow the new subdivision access road to cross Little Loop Creek. In addition, the existing 36-inch Corrugated Metal Pipe (CMP) culvert at the existing North Loop Road creek crossing would be replaced with a 54-inch RCP pipe, 62 feet in length with headwalls installed at each end. (See Sheets 2 and 3 of 8) (4) A storm water detention basin would be constructed (covering an area of 11,000 square feet [with approximately 2,700 square feet {0.06 acre} in wetlands]). (See Sheet 3 of 8) and (5) A new sewer line would be constructed across Wetland Area 3 and would tie-in near the new access road with a trench cut 2 feet wide by 5 feet deep and 180 feet in length and backfilled with 50 cubic yards (cy) of aggregate gravel. The sewer line would result in 300 square feet (0.01 acre) of temporary impacts to wetlands on site. The sewer alignment would be restored and replanted with native vegetation and/or allowed to replant naturally from surrounding wetland vegetation. (See Sheet 3 of 8)

A total of 23,500 square feet (0.54 acre) of PPE wetlands would be filled associated with the proposed access road and detention basin and another 0.03 acre of PF wetlands would be filled with the widening of Loop Road. The culvert and headwall installations would impact approximately 0.02 acre of other waters of the United States (Little Loop Creek).

The new culvert and a replacement culvert would be sized for a 100-year creek flow event. Since the subdivision would be installing a storm water detention basin adjacent to the creek, only upstream flow has been considered in the analysis. The invert elevation of the upstream end of the new culvert would be + or – 6 inches below the existing creek flow line. At the existing North Loop culvert where the existing outlet is 18 inches above the creek, it is proposed to lower the outlet of the new replacement culvert down 18 inches to the flow line of the creek.

The storm water detention facility is required to control the amount of storm water draining off the property. All of the storm water generated by the subdivision would be diverted to a detention pond. An outlet structure would limit the flow of storm water to a pre-development level. The pond is

designed with a one-foot freeboard above the 100-year storm capacity with an overflow in the top of the outlet structure. A 24-inch diameter pipe would convey the water to Little Loop Creek approximately 75 feet away. Prior to reaching the creek, the pipe would empty into an 8-foot wide by 10-foot long rip-rapped channel (built in upland vegetation) to dissipate the water flow. The storm water detention basin would hold approximately 0.80 acre-foot of water.

Purpose and Need: The basic purpose of this project is to create primary access via a new road to a planned housing development on the subject parcel. The access road is required by the City of Fortuna because the adjacent neighborhood road to the south cannot support the traffic expected with the 61-lot development. The overall purpose of this project is to develop a subdivision with supporting road, utility and other related services at the subject parcel.

Impacts: The project will result in a total 0.57 acre of permanent seasonal freshwater wetland impacts from road construction and widening, and storm water detention pond construction. Approximately 0.03 acre of impacts to other waters of the United States (Little Loop Creek) would result from new culvert construction and culvert replacement. Tables 1 and 2 show the breakdown of these impacts. (See Sheet 8 of 8).

Mitigation: The applicant proposes to create approximately 0.66 acre of PPE seasonally flooded wetland to compensate for the loss of 0.54 acre of PPE wetlands and 0.04 acre of PF wetlands. The mitigation is proposed due to impacts to aquatic resources which could not be avoided. The proposed new road access, road widening of North Loop Road, and storm water detention basins location were designed to minimize wetland impacts as much as possible. The mitigation is offsite but in-kind and is located at an upland site in the Arcata Bottoms near Janes Creek on a 26.2-acre parcel (APN 505-151-01), NW ¼ of Section 29 and the southwest ¼ of Section 20 of T 6 N and Range 1 E, Arcata North USGS Quadrangle (See Sheets 5 through 7 of 8). Foster Avenue borders the parcel to the south and the old Simpson forest products mill is located nearby to the northwest. The offsite mitigation area is owned by Park Meadow Estates, LLC.

In addition, to offsite wetland mitigation, a wetlands enhancement project is planned in the vicinity of the proposed Riverview Terrace subdivision site. Onsite wetland enhancement would occur at Wetland Area 1 (See Sheet 3 of 8), east of the new road access and across from the proposed storm water detention basin. A section of Wetland Area 1 that is not filled from the access road would be enhanced to mitigate for lost marsh habitat (2,331 square feet). This area would remain as PPE wetlands but would be modified to support marsh type species removed from the adjacent marsh portion of Wetland Area 1 during access road construction. The marsh area to be filled by the road would be used as a source for vegetation applied to wetland enhancement. A portion of Wetland Area 1 would be initially graded down approximately 1 foot, removing compacted fill mounds to support a variety of marsh plant species; the adjacent marsh vegetation would then be transported by backhoe to the nearby enhancement site. This enhancement would increase the wetland mitigation of project impacts to a ratio of 2:1.

The loss of riparian habitat in Wetland Area 1 and upland riparian area (5,230 square feet total) as a result of access road creek crossing would be mitigated for by enhancement of the riparian buffer that currently lines the creek. Additional riparian vegetation would be planted to expand the riparian buffer and enhance Wetland Area 3 (See Sheets 2 and 3 of 8) resulting in a 1:1 ratio for lost riparian habitat. Details of both the offsite wetland mitigation and onsite wetland enhancement proposals are described in the document, *Wetland Mitigation and Monitoring Plan Riverview Terrace, LLC Assessor*

Parcel Number (APN) 202-061-07 Fortuna, California, prepared by Winzler and Kelly Consulting Engineers dated April 2005. Copies of this mitigation plan can be reviewed in the Corps Eureka Office on Woodley Island or obtained by contacting the Eureka Office of the Corps at 707-443-0855. The Corps would then ask Winzler and Kelly for additional copies.

3. **COMPLIANCE WITH VARIOUS FEDERAL LAWS:**

National Environmental Policy Act of 1969 (NEPA): The Corps will assess the environmental impacts of the proposed action in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. Section 4371 et. seq.), the Council on Environmental Quality's Regulations (40 CFR Parts 1500-1508), and the Corps' Regulations (33 CFR Part 230 and Part 325, Appendix B). Unless otherwise stated, the Environmental Assessment will describe only the impacts (direct, indirect, and cumulative) resulting from activities within the Corps' jurisdiction. The documents used in the preparation of the Environmental Assessment will be on file with the Eureka Office of the U.S. Army Corps of Engineers, 601 Startare Drive, on Woodley Island, in Eureka, California. The Eureka Office can be contacted at 707-443-0855.

Endangered Species Act of 1973 (ESA): Section 7 of the Endangered Species Act requires formal consultation with the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) if a Corps permitted project may adversely affect any Federally listed threatened or endangered species or its designated critical habitat. The Eel River and its tributaries, including Strongs Creek, serves as a migration, rearing and spawning corridor for coho salmon (*Oncorhynchus kisutch*), Chinook salmon (*O. tshawytscha*), and steelhead (*O. mykiss*). All three of these anadromous fish species are listed as threatened by NMFS. The Eel River and its tributaries are critical habitat for coho salmon and proposed critical habitat for steelhead and Chinook salmon.

Winzler and Kelly state (Winzler and Kelly Wetland Mitigation Plan, April 2005) that no coho salmon have been known to occur in Little Loop Creek as the creek is seasonal and mostly associated with storm water. Special-status fish species are known to occur in Strongs Creek but only in the lower reaches near the Eel River. A fish barrier currently exists on the north side of Loop Road. The current CMP culvert is crushed (80% shut), and is only partially functioning to convey water flow. Since the proposed project may have an indirect impact on listed fish due to influx of fine sediment and turbidity, construction or roadway pollution into waterways downstream from Little Loop Creek (this may be modified or eliminated by the storm water detention pond facility), the Corps will initiate informal Section 7 consultation with NMFS regarding the potential for impacts to listed fish and habitat from the Riverview Terrace subdivision and supporting facilities including, roads, etc.

Magnuson-Stevens Fisheries Conservation and Management Act: NFMS and several interagency fisheries councils have designated specific water bodies as Essential Fish Habitat (EFH) in accordance with the Magnuson-Stevens Fisheries Conservation and Management Act. Specific EFH concerns associated with this proposal include EFH for coho salmon and Chinook salmon. Coordination with NMFS in regard to EFH will be initiated concurrently with the ESA consultation, if necessary.

Clean Water Act of 1972 (CWA):

a. Water Quality: Under Section 401 of the Clean Water Act (33 U.S.C. Section 1341), an applicant for a Corps permit must first obtain a State water quality certification before a Corps permit may be issued. The applicant provided to the Corps a copy of an application (dated April 8, 2005) for Section 401

Water Quality Certification submitted to the California Regional Water Quality Control Board (RWQCB), North Coast Region. No Corps permit will be granted until the applicant obtains the required water quality certification. The Corps may assume that water quality certification has been obtained if the State fails or refuses to act on a valid request for certification within 60 days after the receipt of a valid request, unless the District Engineer determines a shorter or longer period is reasonable for the State to act.

Those parties concerned with any water quality issue that may be associated with this project should write to the Executive Officer, California Regional Water Quality Control Board, North Coast Region, 5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403; by the close of the comment period of this Public Notice.

b. Alternatives: Evaluation of the proposed activity's impact includes application of the guidelines promulgated by the Administrator of the Environmental Protection Agency (EPA) under Section 404(b)(1) of the Clean Water Act (33 U.S.C. Section 1344(b)). An evaluation has been made by this office under the guidelines and it was determined that the proposed project is not water dependent. The applicant has not submitted an Analysis of Alternatives and has been informed that such an Analysis is required and will be reviewed for compliance with the guidelines (the applicant did reference alternatives in the permit application and the wetland mitigation plan but that analysis is incomplete with regards to the EPA Section 404 (b)(1) Guidelines and the applicant is requested to provide a more detailed analysis).

National Historic Preservation Act of 1966 (NHPA): The San Francisco District archaeologist will be contacted to investigate pertinent literature, cultural resources surveys, and other information to determine if historic or prehistoric cultural resources sites or information are in the project vicinity. If data on file with various City, State and Federal agencies, and native American Tribes indicates that no historic or archeological resources are known to occur in the project vicinity, special conditions to the permit would be added that require: if unrecorded resources are discovered during construction of the project, operations will be suspended until the Corps completes consultation with the State Historic Preservation Office (SHPO) and/or Tribal Historic Preservation Office (THPO) in accordance with Section 106 of the National Historic Preservation Act.

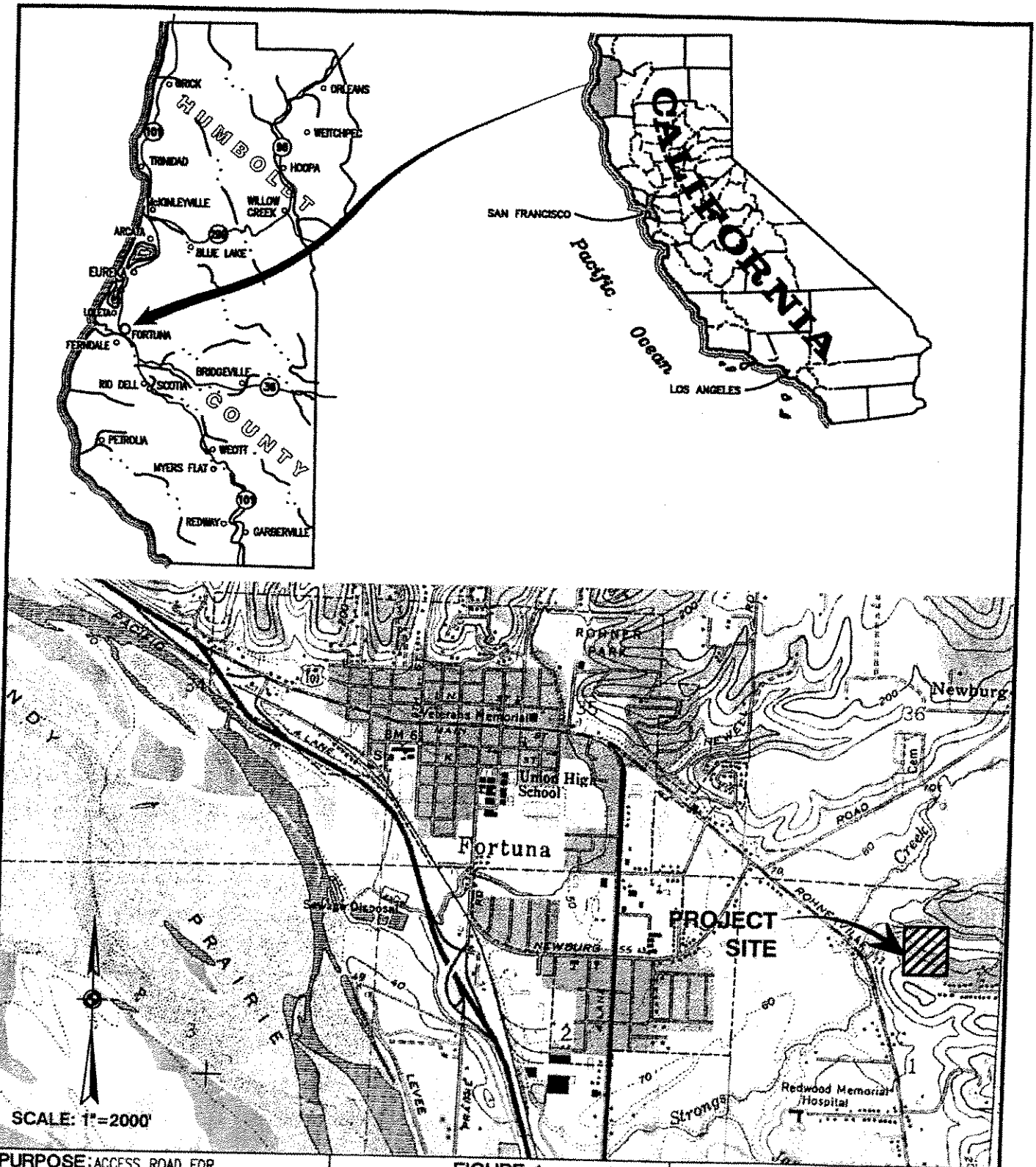
4. **PUBLIC INTEREST EVALUATION:** The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impact, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits that reasonably may be expected to accrue from the proposed activity must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered, including its cumulative effects. Among those factors are: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

5. **CONSIDERATION OF COMMENTS:** The Corps of Engineers is soliciting comments from the public, Federal, State and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, condition

or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest in the proposed activity.

6. **SUBMISSION OF COMMENTS:** Interested parties may submit, in writing, any comments concerning this activity. Comments should include the applicant's name and the number and the date of this Public Notice, and should be forwarded so as to reach this office within the comment period specified on Page 1. Comments should be sent to Mr. David Ammerman, U.S. Army Corps of Engineers, San Francisco District, Eureka Field Office, P.O. Box 4863, Eureka, California 95502. It is the Corps' policy to forward any such comments that include objections to the applicant for resolution or rebuttal. Any person may also request, in writing, within the comment period of this Public Notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. For further information contact David Ammerman of our Eureka Field Office at 707-443-0855. Comments can also be sent by E-mail at: David.A.Ammerman@usace.army.mil. Details on any changes of minor nature that are made in the final permit action will be provided upon request.

FILE: J:\CAD\JOBS\2004\04100B01\dwg\FIGURE 1.dwg DATE: Apr 04 05 @ 2:40pm



PURPOSE: ACCESS ROAD FOR HOUSING DEVELOPMENT

DATUM:

ADJACENT PROPERTY OWNERS: SEE BLOCK 24 AND ATTACHED PARCEL MAPS

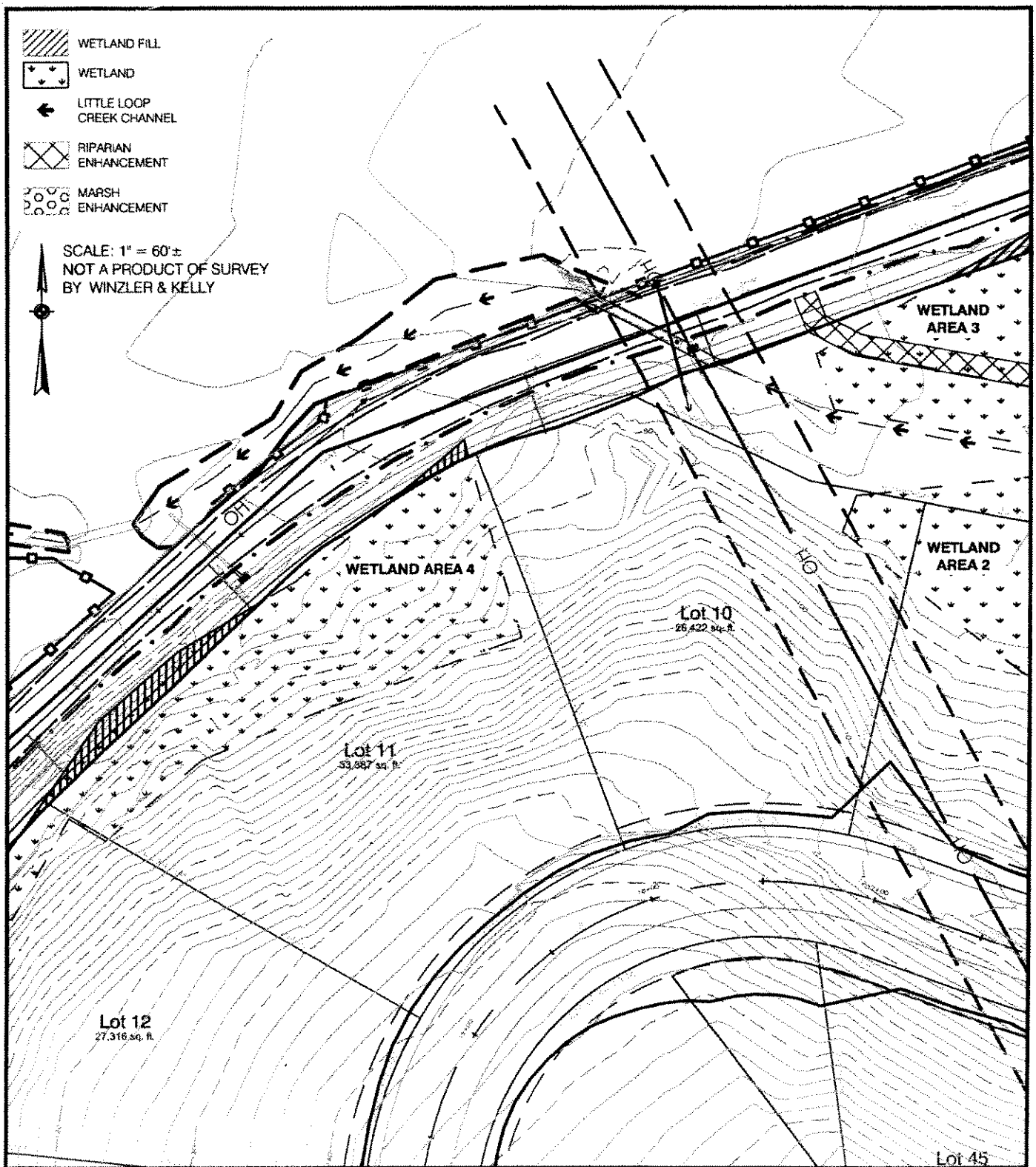
FIGURE 1
VICINITY & LOCATION MAP

OWNER: RIVERVIEW TERRACE LLC

RIVERVIEW TERRACE

IN LITTLE LOOP CREEK
AT FORTUNA
COUNTY OF HUMBOLDT **STATE** CA
APPLICATION BY WINZLER & KELLY CONSULTING ENGINEERS
SHEET 1 **OF** 8 **DATE** 03/25/05

WINZLER & KELLY



FILE: J:\CAD\JOBS\2004\04100801\dwg\FIGURE 2a.dwg DATE: Apr 07 05 @ 3:20pm

PURPOSE: ACCESS ROAD FOR HOUSING DEVELOPMENT

DATUM:

ADJACENT PROPERTY OWNERS: SEE BLOCK 24 AND ATTACHED PARCEL MAPS

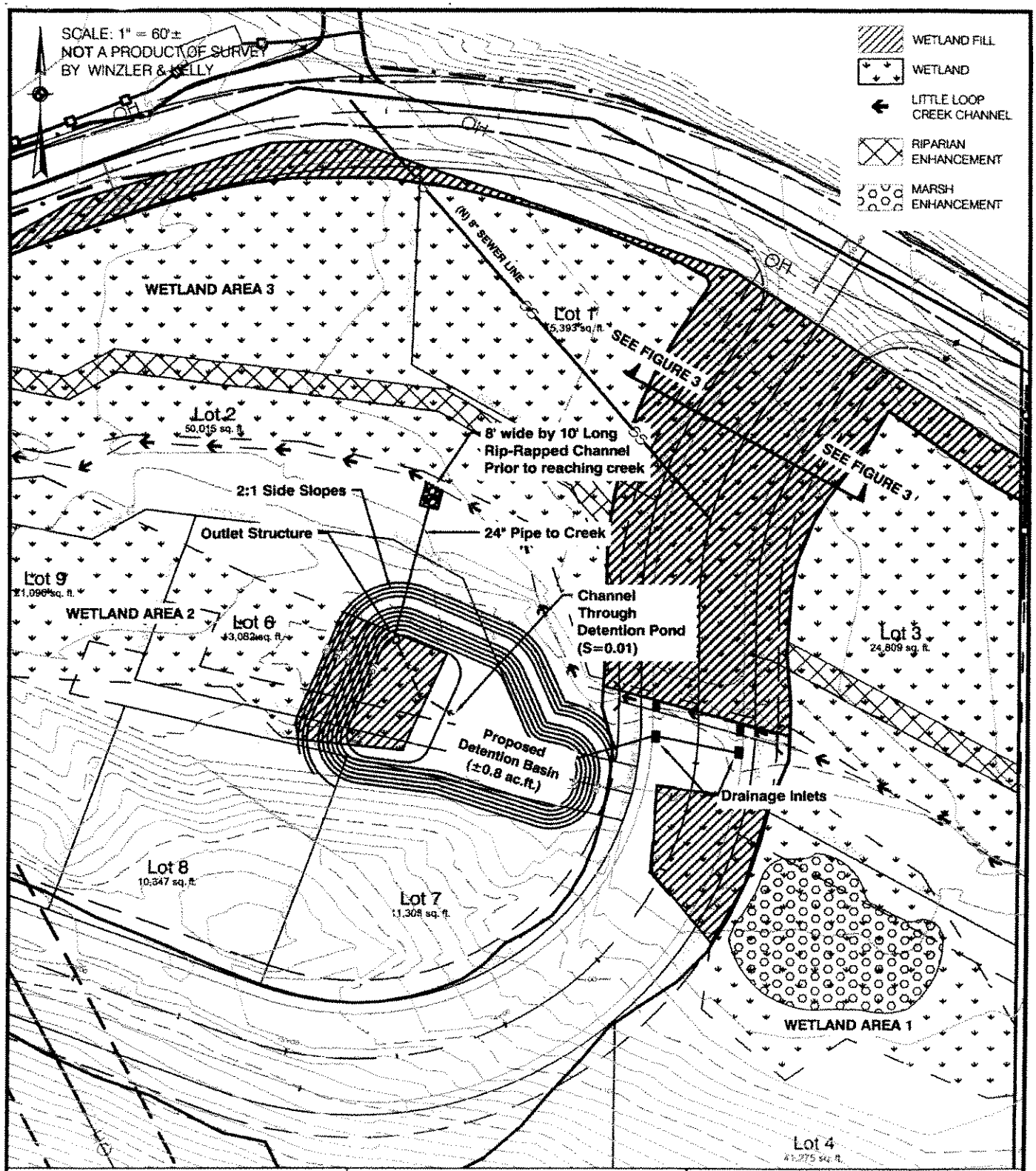
FIGURE 2a
SITE PLAN WEST

OWNER: RIVERVIEW TERRACE LLC

RIVERVIEW TERRACE

IN LITTLE LOOP CREEK
AT FORTUNA
COUNTY OF HUMBOLDT **STATE** CA
APPLICATION BY WINZLER & KELLY CONSULTING ENGINEERS
SHEET 2 **OF** 8 **DATE** 03/25/05

WINZLER & KELLY



FILE: J:\CAD\JOBS\2004\04100801\dwg\FIGURE 2b.dwg DATE: Apr 07 05 @ 3:17pm

PURPOSE: ACCESS ROAD FOR HOUSING DEVELOPMENT

DATUM:

ADJACENT PROPERTY OWNERS:
SEE BLOCK 24 AND ATTACHED PARCEL MAPS

FIGURE 2b
SITE PLAN EAST

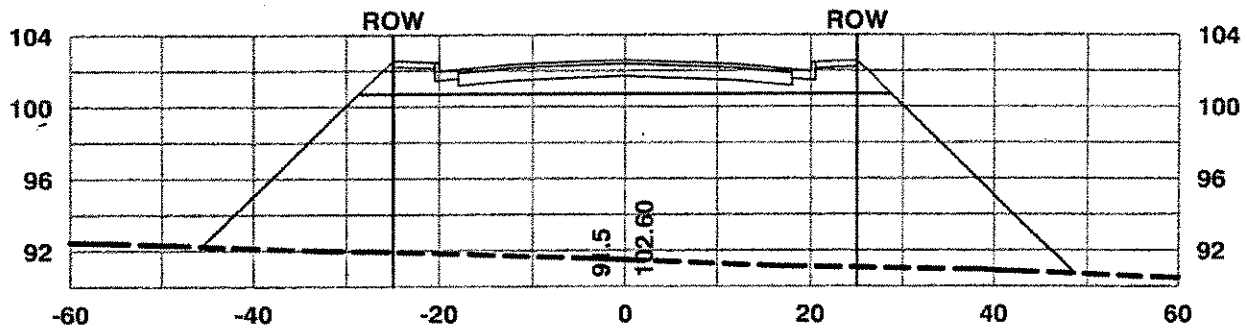
OWNER:
RIVERVIEW TERRACE LLC

RIVERVIEW TERRACE

IN LITTLE LOOP CREEK
AT FORTUNA
COUNTY OF HUMBOLDT **STATE** CA
APPLICATION BY WINZLER & KELLY
CONSULTING ENGINEERS
SHEET 3 **OF** 8 **DATE** 03/25/05

WINZLER & KELLY

FILE: J:\CAD\JOBS\2004\04100801\dwg\FIGURE 3.dwg DATE: Apr 04 05 @ 2:42pm



SCALE: 1"=20'

PURPOSE: ACCESS ROAD FOR HOUSING DEVELOPMENT

DATUM:

ADJACENT PROPERTY OWNERS: SEE BLOCK 24 AND ATTACHED PARCEL MAPS

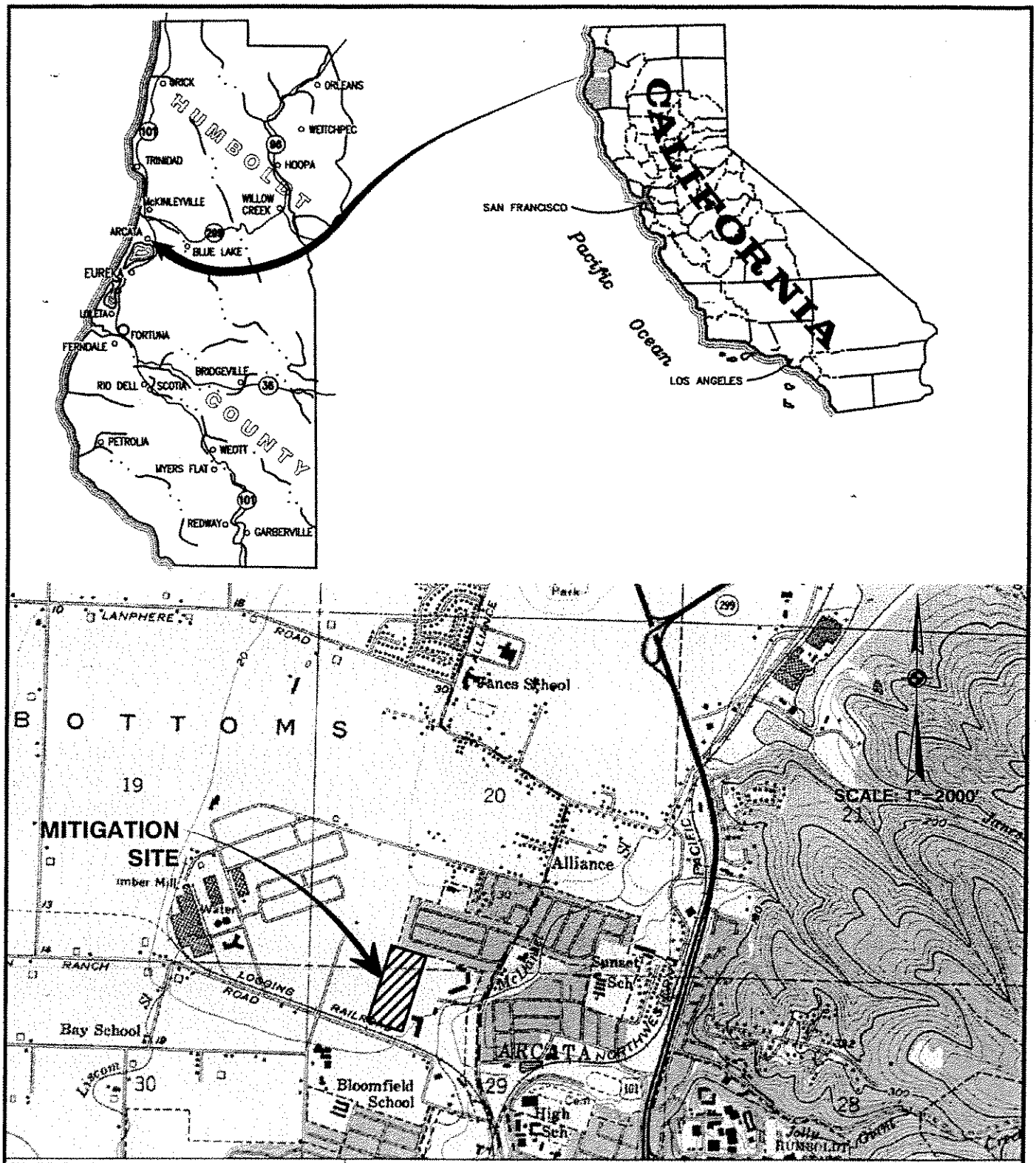
FIGURE 3
SITE CROSS SECTION

OWNER: RIVERVIEW TERRACE LLC

RIVERVIEW TERRACE

IN LITTLE LOOP CREEK
AT FORTUNA
COUNTY OF HUMBOLDT **STATE** CA
APPLICATION BY WINZLER & KELLY CONSULTING ENGINEERS
SHEET 4 **OF** 8 **DATE** 03/25/05

WINZLER & KELLY



PURPOSE: ACCESS ROAD FOR HOUSING DEVELOPMENT

DATUM:

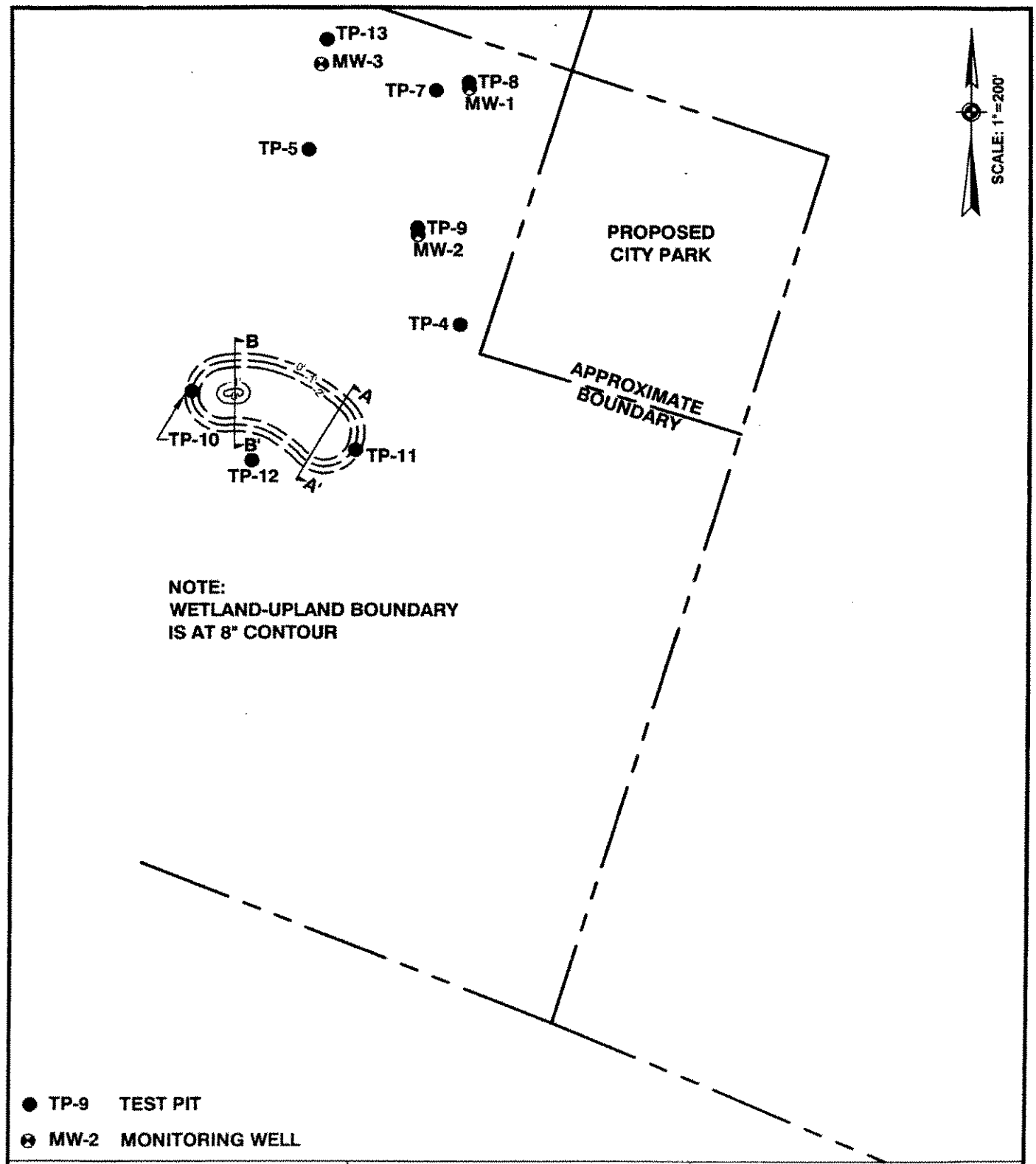
ADJACENT PROPERTY OWNERS:
SEE BLOCK 24 AND ATTACHED PARCEL MAPS

FIGURE 4
MITIGATION VICINITY MAP

OWNER:
RIVERVIEW TERRACE LLC

RIVERVIEW TERRACE

IN LITTLE LOOP CREEK
AT FORTUNA
COUNTY OF HUMBOLDT **STATE** CA
APPLICATION BY WINZLER & KELLY
CONSULTING ENGINEERS
SHEET 5 **OF** 8 **DATE** 03/25/05



FILE: J:\CAD\JOBS\2004\04100801\dwg\FIGURE 5.dwg DATE: Apr 07 05 @ 3:31pm

PURPOSE: ACCESS ROAD FOR HOUSING DEVELOPMENT

DATUM:

ADJACENT PROPERTY OWNERS: SEE BLOCK 24 AND ATTACHED PARCEL MAPS

FIGURE 5
MITIGATION SITE PLAN

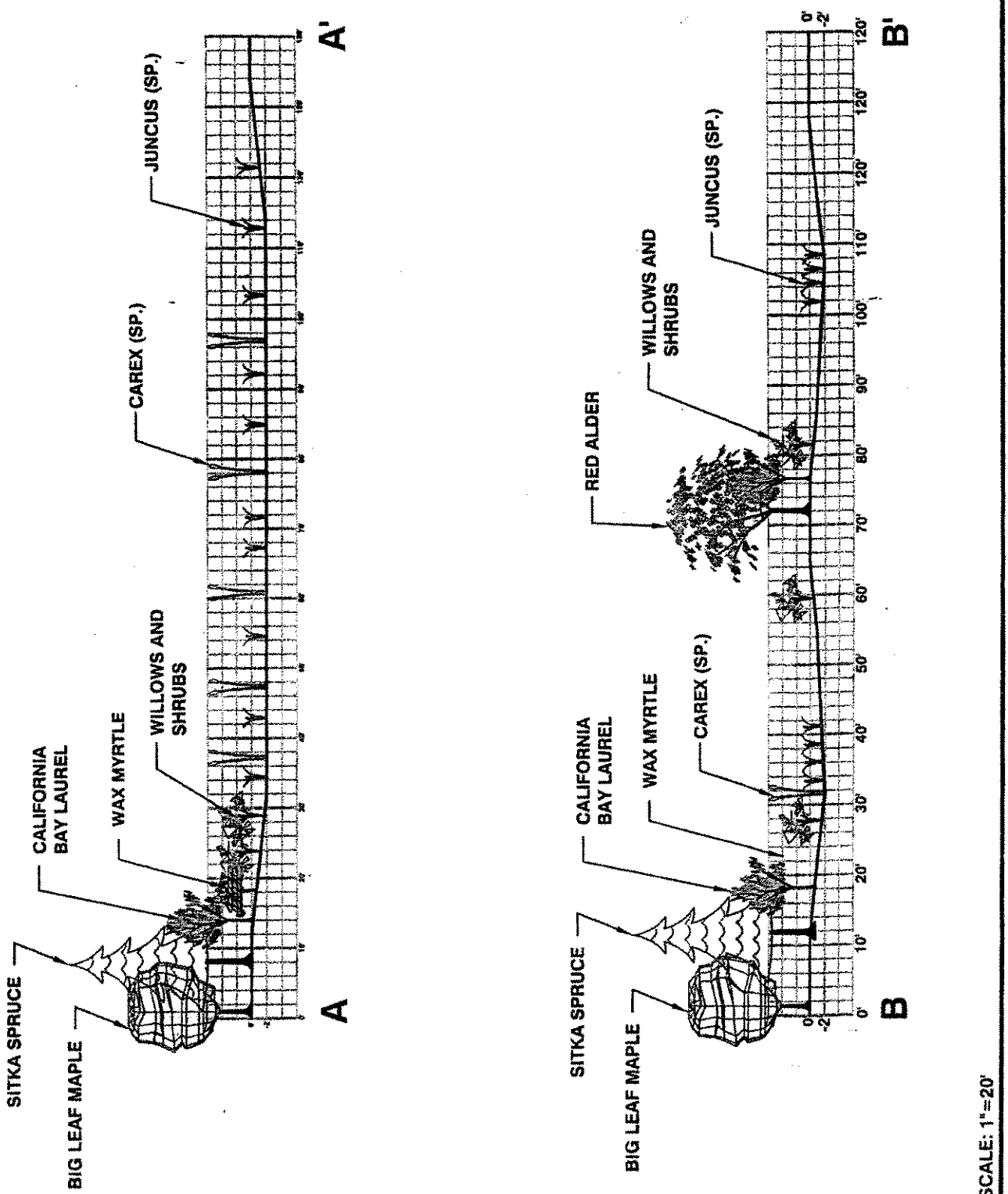
OWNER: RIVERVIEW TERRACE LLC

RIVERVIEW TERRACE

IN LITTLE LOOP CREEK
AT FORTUNA
COUNTY OF HUMBOLDT **STATE** CA
APPLICATION BY WINZLER & KELLY CONSULTING ENGINEERS
SHEET 6 **OF** 8 **DATE** 03/25/05

WINZLER & KELLY

FILE: J:\CAD\JOBS\2004\04100801\dwg\FIGURE 6.dwg DATE: Apr 04 05 @ 2:39pm



PURPOSE: ACCESS ROAD FOR HOUSING DEVELOPMENT

DATUM:

ADJACENT PROPERTY OWNERS:
SEE BLOCK 24 AND ATTACHED PARCEL MAPS

FIGURE 6
MITIGATION CROSS SECTION

OWNER:
RIVERVIEW TERRACE LLC

RIVERVIEW TERRACE

IN LITTLE LOOP CREEK
AT FORTUNA
COUNTY OF HUMBOLDT **STATE** CA
APPLICATION BY WINZLER & KELLY CONSULTING ENGINEERS
SHEET 7 **OF** 8 **DATE** 03/25/05

WINZLER & KELLY

A total of 23,500 square feet (0.5 acres) of Palustrine Persistent Emergent seasonally flooded wetlands will be filled in total, associated with the proposed site access road on the low terraced area adjacent to Little Loop Creek. Additionally, 1,150 square feet (0.03 acres) of Palustrine Forested Wetland will be filled, associated with the widening of Loop Road. Table 1 summarizes the total acreage to be filled.

Table 1: Impact Acreage of Wetlands to be Filled

Wetland Type	Acres	Square Feet	Description / Location
Palustrine Persistent Emergent Seasonally Flooded[1]	23,500	0.54	Wetlands associated with the low terraced area adjacent to Little Loop Creek, consisting mostly of a grassy herb layer. Fill associated with access road and detention basin.
Palustrine Forested Wetland[2]	1,150	0.03	Wetlands associated with the break in slope adjacent to Loop Road. Fill associated with widening of Loop Road.
TOTAL	**24,650**	**0.57**	
Little Loop Creek ("waters")	72 Linear Feet		Portion of creek to be placed in culvert under access road to the site. Fill associated with culvert for access road.

Notes:
[1] Associated with the proposed site access road on the low terraced area adjacent to Little Loop Creek.
[2] Associated with the widening Loop Road.

The filling of the Little Loop Creek and seasonal wetlands will be mitigated by the creation of offsite Palustrine Emergent Persistent Seasonally Flooded Wetlands (see Figures 4 and 5). The mitigation plan proposes to create 0.7 acres (30,000 ft^2) of wetlands on uplands at an offsite mitigation area near Arcata, California. An average 2.0-foot grading depth will be sufficient to create seasonal wetland conditions at the offsite mitigation area. Table 2 is a summary of wetlands fill and mitigation.

Table 2: Impact Versus Mitigation Acreage

		FILLED		MITIGATION[1]		
Classification	**Habitat**	**Square Feet**	**Acres**	**Square Feet**	**Acres**	**Percent Replaced[2]**
Palustrine Emergent Persistent Seasonally Flooded	Grassland, Marsh, Riparian	23,500	0.54	28,600	0.66[1]	
Palustrine Forested Wetland	Redwood Forest	1,150	0.03	1,400	0.04	
TOTALS		**24,650**	**0.57**	**30,000**	**0.70**	**120[3]**

Notes:
[1] Wetland replacement at offsite mitigation area in Arcata, California
[2] Wetlands enhancement acreage increases mitigation ratio if included in calculation
[3] This is a 1.2:1 replacement ratio